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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,988	03/22/2004	Shigeo Ito	4041J-000847	1369

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EXAMINER

BENTON, JASON

ART UNIT PAPER NUMBER

3747

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No.	Applicant(s)	
	10/805,988	ITO ET AL.	
	Examiner	Art Unit	
	Jason Benton	3747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-9 is/are rejected.
- 7) ☒ Claim(s) 5 and 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/22/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, and 7-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Toyoshima et al.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

The patent by Toyoshima et al. (6,718,925) shows a heat storage tank for storing a coolant of a liquid-cooled engine.

The coolant is stored in a tank body (110) while being substantially thermal-insulated. The tank body has an inner wall surface (111) for defining a cylindrical opening portion at one end side (113).

A coolant passage portion (Fig. 3) has an insertion portion to be inserted into the cylindrical opening portion in an axial direction of the cylindrical opening portion. The coolant passage portion defines therein a flow passage (114, 17) communicating with the tank body. Through which the coolant flows into and out of the tank body.

At least two O-rings (116x) are present for sealing a clearance between the insertion portion and the inner wall surface defining the cylindrical opening portion. The two O-rings are disposed between an outer wall surface of the insertion portion and the inner wall surface defining the cylindrical opening portion of the tank body to be lined in the axial direction of the cylindrical opening portion.

One of the insertion portion and the inner wall surface defining the cylindrical opening portion has two groove portions separated from each other in the axial direction (Fig. 3). The two O-rings are disposed in the two groove portions in parallel with each other to be separated from each other in the axial direction by a predetermined distance.

The coolant passage portion is made of a resin material.

The coolant passage portion is constructed of a first portion at a predetermined position of the flow passage, and a second portion that is a residual part of the coolant passage portion except for the first portion. The first portion is attached to the second portion after the first portion is formed separately from the second portion (Fig. 3).

The tank body includes an inner tank portion (111) for storing the coolant therein and an outer tank portion (112) covering the inner tank portion through a vacuum layer that is used as a heat insulation layer.

The inner tank portion has the inner wall surface defining the cylindrical opening portion.

The two O-rings have outer peripheral surfaces tightly contacting the inner wall surface of the inner tank portion defining the cylindrical opening portion.

A first bracket to which the outer tank portion is attached is shown. A second bracket to which the insertion portion is attached is also shown (Fig. 2).

The outer tank portion and the insertion portion are attached to a vehicle body through the first and second brackets respectively.

The inner tank portion is fixed to the vehicle body through the two O-rings and the insertion portion.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Toyoshima et al. in view of Rosenqvist.

The patent by Toyoshima et al. does not show a drain valve. The patent by Rosenqvist (2,016,179) shows a heat storage tank with a drain valve in the coolant inlet passage for draining the coolant stored in the tank body.

In view of Rosenqvist, it would have been obvious to anyone skilled in the art who wanted to drain coolant from the coolant circuit in order to refill the circuit with fresh

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coolant to improve on Toyoshima et al. by providing a drain plug off of the inlet passage in the heat storage tank.

Allowable Subject Matter

Claims 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Benton whose telephone number is (571) 272-4838. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on (571) 272-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JB


Henry C. Yuen
Supervisory Patent Examiner
Group 3700